

REMARKS

The following remarks are being submitted as a full and complete response to the Office Action dated July 16, 2003 (U.S. Patent Office Paper No. 6). In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

As outlined above, claims 1 through 13 are pending in this application.

Prior Art Rejections

Claims 1 – 13 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Kanou *et al.*, U.S. Patent No. 6,407,784 B1 (further, the '784 patent). Applicants respectfully traverse the rejection.

Claim 1 recites a liquid crystal display device being characterized in that the liquid crystal device has a pair of substrates which are arranged to face each other while inserting liquid crystal therebetween, to respective liquid-crystal side pixel regions formed on one of the substrates, pixel electrodes which reflect an external light incident through the other substrate are provided, the pixel electrodes are formed such that protruding portions are scattered on surfaces thereof and respective protruding portions are provided in two or more kinds which are different in shape from each other when the pixel electrodes are viewed in a plan view, and the protruding portions formed on the surfaces of the pixel electrodes are formed of island-like multi-layered material layers which are positioned at the lower layer sides of the pixel electrodes.

On page 2 of the office action, the Examiner notes that the rejection regarding claims 1 – 13 is based on the same reasons outlined in a previous office action, dated February 13, 2003. In addition, the Examiner refers to the disclosure of Fig. 3 from the '784 patent as basis for the rejection against the previously amended claim 3.

In this final office action, the Examiner disagreed with the Applicant's response to the February 13, 2003 office action "because Kanou discloses that the protruding portions may be formed pillar-shaped or strip-shaped (col. 6, lines 18-19). The Examiner took the position that, in view of that recitation, the protruding portions may have different shapes (rounded, squared, triangular, etc...) when viewed in plan view." Applicants respectfully disagree.

As indicated in the specification of the present application, paragraph [0011] explains that "In the liquid crystal display device having such a constitution, with respect to the protruding portions formed on the surface of the pixel electrodes, two or more kinds of protruding portions formed on the surface of the pixel electrodes, two or more kinds of protruding portions which are different in shape when the pixel electrodes are viewed in a plan view are present so that the light beams which are reflected on side surfaces of the protruding portions of the pixel electrodes hardly interfere with each other. Accordingly, the quality of the display can be enhanced."

Applicants respectfully submit that '784 patent at most only discloses in col. 6, lines 18-19 that "the protruding portions may be formed pillar-shaped or strip-shaped" and that "the protruding portions may have different shapes (rounded, squared, triangular, etc...) when viewed in plan view." In fact, the '784 patent does not disclose, teach or suggest a mixed configuration with two or more different shapes. Based on the actual disclosure of the '784 patent, one of skill in the art would at best interpret this reference as showing that protruding portions could be either all pillar-shaped or all strip-shaped. This reference provides no other teaching or suggestion.

Applicants would contend that the Examiner is in actuality extrapolating his finding based on his knowledge of the disclosure of the present invention. Applicants would submit that, since the Examiner has provided no other reference to show the above-noted feature of the present invention, the only teaching available to the Examiner of protruding portions being of mixed configurations is the disclosure of the present invention itself. It is well established that a rejection based on information that an examiner gleans from the knowledge of the invention at issue is improper.

In addition, contrary to the Examiner's conclusion that "the protruding portions may have different shapes (rounded, squared, triangular, etc...) when viewed in plan view", the '784 patent does not even provide a plan view of the structures that it does disclose, only cross-sectional views. Therefore, the Examiner has no prior art reference available to support his position that the structure of the claimed invention "when viewed in a plan view" would have been known in the prior art. The only disclosure of how protruding portions may appear in a plan view is again only available from the disclosure of the present invention itself. Once again, the Examiner has improperly used his knowledge of the present invention as a basis for rejecting that same invention.

Due to the reasons outlines above, Applicants will contend that the '784 patent cannot anticipate or render obvious each and every feature of the present invention as claimed in claim 1. Applicants respectfully request the Examiner to reconsider and thereby withdraw the rejection regarding claim 1.

Regarding Examiner's rejection of claim 2, as outlined above, the prior art cited fails to disclose, teach or suggest each and every feature as recited in claim 1. Since claim 2 depends from claim 1, Applicants will submit that the same prior art cannot be used to anticipate or render obvious the present invention as recited in claim 1 and as further limited by claim 2. In essence, the '784 patent fails to disclose, teach or suggest, among other features, a mixed configuration of island-like, multi-layered material layers that have "different number of layers."

Regarding the Examiner's rejection of claim 3, again as outlined above, the prior art cited fails to disclose, teach or suggest each and every feature as recited in claim 1. Since claim 3 also depends from claim 1, Applicants will submit that the same prior art cannot be used to anticipate or render obvious the present invention as recited in claim 1 and as further limited by claim 3. In essence, the '784 patent fails to disclose, teach or suggest, among other features, a mixed configuration of island-like multi-layered material layers whose shape of one layer is different from corresponding one layer of other island-like multi-layered material layers when the island-like multi-layered material layers are viewed in a plan view."

In response to Examiner's rejection of claim 4, once again as outlined above, the prior art cited fails to disclose, teach or suggest each and every feature as recited in claim 1. Since claim 4 depends from claim 1, Applicants will submit that the same prior art cannot be used to anticipate or render obvious the present invention as recited in claim 1 and as further limited by claim 4. Essentially, the '784 patent fails to disclose, teach or suggest, among other features, a mixed configuration of island-like, multi-layered material layers wherein in each island in each island-like multi-layered material layer, the center position of the shape of one layer is offset from the center position of the shape of other layer, whereby the respective protruding portions can be formed of two or more kinds which are different in shape when the pixel electrodes are viewed in a plan view.

The remaining claims 5 - 13 are dependent from and add features to the claims discussed above. In view of the above arguments, Applicants will contend that they are also allowable for at least the same reasons.

CONCLUSION

In view of all the above, Applicants respectfully submit that certain clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely. These differences are more than sufficient that the present invention as now claimed would not have been anticipated nor rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and phone number indicated below.

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